4 *Comparative temperature curve, p. 31*
5 *Suggested correlation of Transvaal Australopithecine sites and rainfall changes, p. 34*
6 *Percentage porosity of sand component in soil, p. 35*
7 *Climatic fluctuations during later Pleistocene and Recent time, p. 36*
8 *African topography, p. 47*
9 *Faunal and fossil man localities, p. 49*
10 *Reconstruction of the skull of* Dryopithecus africanus, *p. 50*
11 *Times of divergence of various hominoids, p. 53*
12 *Olduvai Gorge stratigraphy, p. 57*
13 *Two possible interpretations of hominid evolution, p. 63*
14 *Tools of the Oldowan Industry, p. 69*
15 *Developed Oldowan and Lower Acheulian implements, pp. 82, 83*
16 *Acheulian flaking techniques, p. 85*
17 *Mixed Acheulian and developed Oldowan tools, p. 87*
18 *Oldowan and Acheulian sites, p. 89*
19 *Upper Acheulian tools from Kalambo Falls, pp. 92, 93*
20 *Artifact percentage frequencies in Upper Acheulian sites, p. 98*
21 *Mousterian, 'Fauresmith' and Sangoan sites, p. 109*
22 *'Fauresmith' tools from Rooidam, near Kimberley, p. 111*
23 *Sangoan/Lower Lupemban tools, p. 113*
24 *Mousterian and Libyan 'Pre-Aurignacian' tools, p. 115*
25 *Upper and Post-Pleistocene Fossil Man sites, p. 119*
26 *Omo crania, Member I, Kibishi Formation, p. 121*
27 *Possible scheme of population change, p. 122*
28 *Technique of removing blades, p. 123*
29 *Prepared cores and derived 'blanks', p. 124*

Ancient Peoples and Places

THE PREHISTORY OF AFRICA

General Editor
DR. GLYN DANIEL

ABOUT THE AUTHOR

John Desmond Clark, having graduated with first class honors from Christ's College, Cambridge University, in 1937, was appointed Curator of the National Museum of Zambia (then Northern Rhodesia) and later, as Director, initiated and ran a countrywide antiquities service there. In 1961, he became a professor at the University of California, Berkeley, where he teaches African prehistory. He has carried out excavations in a number of countries in Africa and returns there almost every year to continue archaeological work. Professor Clark is a Fellow of several distinguished institutions, including the British Academy and the American Academy of Arts and Sciences, and holds the diploma of Great Britain's Museums Association. He has published a dozen or more books and some 125 papers in scientific journals.

THE PREHISTORY OF AFRICA

J. Desmond Clark

48 PHOTOGRAPHS
62 LINE DRAWINGS
10 MAPS

PRAEGER PUBLISHERS
New York · Washington

THIS IS VOLUME SEVENTY-TWO IN THE SERIES
Ancient Peoples and Places
GENERAL EDITOR: DR. GLYN DANIEL

BOOKS THAT MATTER

Published in the United States of America in 1970
by Praeger Publishers Inc.,
111 Fourth Avenue, New York, N.Y. 10003
© *1970 in London, England, by J. Desmond Clark*
All rights reserved
Library of Congress Catalog Card Number: 77–108243
Printed in Great Britain

CONTENTS

LIST OF ILLUSTRATIONS

PREFACE

I THE METHODS OF THE PREHISTORIAN

Introduction—Ex Africa semper aliquid novi
Archaeological methods
Dating archaeological material
Determining the palaeo-environment
Analysing the archaeological and associated material
Interpreting the evidence
The prehistorian's aim

II THE EMERGENCE OF MAN THE TOOL-MAKER

The geographical zones of Africa
The earliest fossils : hominoids and hominids
Lower Pleistocene fossils
Australopithecine behaviour

III UNSPECIALIZED HUNTING SOCIETIES

More advanced hominids
The culture of Homo erectus
The way of life of Homo erectus

80

UNIVERSITY LIBRARIES

IV THE COMING AND SPREAD OF MODERN MAN 105
Early Upper Pleistocene climatic changes 105
New habitats and new industries 107
The coming of Homo sapiens 117
Upper Pleistocene tool-kits 123
The way of life of Upper Pleistocene man 137

V SPECIALIZED HUNTING AND GATHERING SOCIETIES 148
Climate in the early Holocene 149
The general pattern of early Holocene industries 151
Microlithic technology 154
The origins of African races 164
Intensive collecting peoples of the Nile Valley 169
The use of sea and freshwater foods 171
The 'Later Stone Age' 173
Rock art 182
General way of life 184

VI FARMERS AND PRESENT-DAY PEOPLES 187
Initial stages of food production 187
Ancient Egypt 192
The spread of domestication 194
The development of agriculture 199
The 'Neolithic' in West Africa 205
The East African high grasslands 206
The spread of Bantu 210
Metallurgy 214

Iron Age societies 218
The significance of prehistory in Africa 221

NOTES ON THE TEXT 224

APPENDIX 247

BIBLIOGRAPHY 254

SOURCES OF ILLUSTRATIONS 268

THE PLATES 269

NOTES ON THE PLATES 285

INDEX 291

ILLUSTRATIONS

PLATES

1 Karoo vegetation, Cape Province
2 Pecked engraving of a warthog, Transvaal
3 Human figures in Kwa-Mateia rock shelter
4 High grasslands, Ngong Hills, Kenya
5 General view of the Olduvai Gorge
6 Circle of lava blocks, Olduvai Gorge
7 Concentrations of Upper Acheulian artifacts
8 Partially articulated skeleton of Deinotherium
9 A lava chopper, quartz flakes and splinters at Olduvai Gorge
10 Sterkfontein Extension Site, Transvaal
11 Upper Acheulian handaxes and spheroids with bones of Sinopithecus
12 Group of handaxes and tools, Kalambo Falls
13 Upper Acheulian fire charred logs, Kalambo Falls
14 Seeds of edible fruits, Kalambo Falls
15 Australian throwing stick compared with one from Florisbad
16 Wooden club and implement, Kalambo Falls
17 Kisese II rock shelter, Kondra district
18 Haua Fteah Cave, Cyrenaica
19 *Brachystegia* woodland, south central Africa
20 Commercial excavations of diamondiferous gravels, north east Angola
21 Chimpanzee termiting
22 Reconstruction of *Australopithecus robustus*

23 The power grip
24 The precision grip
25 Method of making gun-flints in north east Angola
26 Skull of adult Australopithecine
27 Skull of juvenile Australopithecine
28 Mandible of robust Australopithecine
29 Juvenile mandible of *Homo habilis*
30 Mandible of *Homo erectus*
31 Fragmentary skull of juvenile *Homo habilis*
32 Foot bones of adult *Homo habilis*
33 Skull of *Homo rhodesiensis*
34 Calvaria of *Homo erectus*
35 Double burial of two adult males, Sudan
36 Fishing camp, Kafue Flats, Zambia
37 Rock shelter habitation of Rer Magno fishers
38 Collapsed windbreak, Erengo Mountains
39 Bushman group with skinned springbok
40 Baton of engraved bone with quartz flake tip
41 Neolithic village at L'Ouadi
42 Galla man using a digging stick
43–45 Carbonised artifacts from cremation burials
46 Polychrome painting, Eland Cave
47 Rock shelter painting of Neolithic people herding cattle
48 Zimbabwe 'Acropolis', Rhodesia

FIGURES

1 *Chronological table of African prehistory, pp. 18, 19*
2 *The stratigraphic and cultural sequences in coastal Morocco, p. 24*
3 *African rainfall and vegetation, p. 30*